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Author: Keith Greene		

Risk Reduction and Environmental Stewardship— Remediation Services Project

Standard Operating Procedure

for Chain of Custody for Analytical Data Record Packages

☒ NES Approved

Responsible Division Leader: Doug Stavert	Signature & Date  12/14/05
Responsible Line Manager: Alison Dorries	Signature & Date  12/14/05

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Chain of Custody for Analytical Data Record Packages

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Chain of Custody for Analytical Data Record Packages

1.0 PURPOSE

This standard operating procedure (SOP) states the responsibilities and describes the process for establishing and maintaining a proper chain of custody (COC) in the management and processing of analytical data record packages for the Los Alamos National Laboratory (LANL), Risk Reduction and Environmental Stewardship—Remediation Services (RRES-RS) project.

2.0 SCOPE

- 2.1 All **RRES-RS project participants** shall implement this mandatory SOP.
- 2.2 Subcontractors performing work under the RRES-RS Project's quality program shall follow this SOP.

3.0 TRAINING

- 3.1 **RRES-RS project participants** shall train to and use the current version of this SOP; contact the author if the SOP text is unclear.
- 3.2 **RRES-RS project participants** using this SOP shall document training in accordance with Quality Procedure-2.2 (QP-2.2).
- 3.3 The responsible **project leader (PL)** shall monitor the proper implementation of this procedure
- 3.4 The responsible **team leader (TL)** shall ensure that the appropriate personnel complete all applicable training assignments.
- 3.5 **RRES-RS project participants** may request any needed assistance with implementation of this procedure from RRES-RS Quality Integration and Improvement (QII).

4.0 DEFINITIONS

- 4.1 *Analytical data record package*—The controlled data package received from the contract laboratory that is placed and maintained under COC and becomes the official record.
- 4.2 *Chain of custody (COC)*—Documentation or demonstration of the possession of an item by only authorized individuals. COC is maintained when an item is in the possession of an authorized individual, is in view after possession, or is in the possession of the authorized individual and locked in a controlled access area. The COC process provides confidence

in and documentation of analytical data integrity by establishing the traceability of the data from the time of receipt through processing to final maintenance as a record.

- 4.3 *Controlled access area*—An area within the Sample Management Office (SMO) that is specifically designated for the management and storage of analytical data record packages. This area is accessible only when accompanied by designated escort personnel. Designated personnel are listed at the entrance to the controlled access area.
- 4.4 *Data user*—Any individual who receives the analytical data record package under COC (e.g., data owner, editors, RFI report authors).
- 4.5 *Field data package*—A duplicate of the analytical data record package, it is stamped “FIELD COPY” and issued to the data user as preliminary information only. This copy is not controlled.
- 4.6 *Request number (RN)*—The unique identification number assigned to a sample or group of samples sent to a contract laboratory for analysis.
- 4.7 *Sample Management Office (SMO)*—The organization responsible for receipt, coordination, and temporary records management of RRES-RS Project analytical data record packages. The SMO is part of the Information Management RRES-RS Project team.

5.0 RESPONSIBLE PERSONNEL

The following personnel are responsible for activities identified in this procedure:

- Project leader
- Quality program project leader
- RRES-RS project participants
- SMO staff member
- RRES-RS project participant

6.0 BACKGROUND AND PRECAUTIONS

None.

7.0 EQUIPMENT

None.

8.0 PROCEDURE

Make any deviations from this SOP in accordance with QP-5.7 and/or SOP-01.01.

8.1 Receive an Analytical Data Record Package from a Contract Laboratory

Note: The SMO staff member normally receives two copies of an analytical data record package from the contract laboratory.

8.1.1 The **SMO staff member** shall log the analytical data record package into the SMO database by RN.

8.1.2 The **SMO staff member** shall stamp the analytical data record package with a dated receipt stamp.

8.1.3 The **SMO staff member** shall separate the field (duplicate) data package from the analytical data record package.

8.2 Issue a Field Data Package

8.2.1 The **SMO staff member** shall stamp the field data package with the "FIELD COPY" stamp.

8.2.2 The **SMO staff member** shall notify the University of California University technical representative identified in the SMO Sample Tracking Application database that the field data package is ready for pickup.

8.2.3 The **SMO staff member** shall issue the field data package to the data user, who signs for it; no further tracking of this copy is maintained.

8.3 Initiate an Analytical Data Record Package

8.3.1 The **SMO staff member** shall provide the following information in Section I of the Data Validation Cover Sheet (attachment A) and attach the cover sheet to the analytical data record package:

- the LANL charge code
- the RN
- the name of the contract laboratory
- the analytical suites contained in the analytical data record package

8.3.2 The **SMO staff member** shall send the analytical data record package to the contract laboratory that is responsible for editing and routine data validation.

- 8.3.3 After these editing and validation are completed, the **contract laboratory** returns the analytical data record package and completed cover sheet to an SMO staff member.
- 8.3.4 The **SMO staff member** shall place the analytical data record package into a temporary records management location within the SMO controlled access area.

8.4 Issue an Analytical Data Record Package

Note: To maintain analytical data integrity, non-SMO personnel who access the data management area must sign the SMO logbook before entering and upon exiting the area. Entry of non-SMO personnel to the controlled access area requires escort by a designated SMO staff person.

- 8.4.1 The **SMO staff member** shall provide the following information to Section I of the Data Record Package Chain of Custody form (attachment B):
- an indication as to whether the analytical data record package is being issued for the first time
 - the RN for each analytical data record package being transferred
 - the name of the requestor of the data record package
- 8.4.2 The **SMO staff member** shall sign and date Section II of the COC form on the “Relinquished by” line.
- 8.4.3 The **data user** shall sign and date Section II of the COC form on the “Received by” line.
- 8.4.4 The **SMO staff member** shall transfer a copy of the COC form with the data record package.
- 8.4.5 The **SMO staff member** shall duplicate the COC form and place the copy in the data file folder maintained at the SMO for each respective RN listed in the COC form.

8.5 Manage an Analytical Data Record Package

The **data user** shall retain the duplicate COC form generated by the SMO for each analytical data record package in the data user’s custody.

Note: When an analytical data record package has not been returned to the SMO within 30 calendar days of being checked out, an SMO staff member may notify the data user to return the analytical data record package. If the data record package has not been received within three (3) working days of the notification, the SMO staff

member will alert management to the existence of the delinquent analytical data record package.

8.6 Return an Analytical Data Record Package to the SMO

- 8.6.1 The **data user** shall return the analytical data record package to the SMO.
- 8.6.2 The **data user** shall sign and date the COC form in the “Relinquished by” section.
- 8.6.3 The **SMO staff member** shall sign and date the COC form in the “Received by” section.
- 8.6.4 The **SMO staff member** shall retain the original copy of the COC form upon transfer of the analytical data record package.
- 8.6.5 The **data user** shall retain a copy of the COC form.
- 8.6.6 The **SMO staff member** shall place a copy of the COC form in the data file folder for each respective RN.
- 8.6.7 The **SMO staff member** shall return the analytical data record package to the data record package management location within the controlled access area.

9.0 LESSONS LEARNED

- 9.1 Before performing work described in this SOP, **RRES-RS project participants** should go to the Department of Energy Lessons Learned Information Services home page at <http://www.tis.eh.doe.gov/II/II.html>, and/or to the LANL Lessons Learned Resources web page at http://www.lanl.gov/projects/lessons_learned/, and search for applicable lessons.
- 9.2 During work performance and/or after the completion of work activities, **RRES-RS project participants**, as appropriate, shall identify, document, and submit lessons learned in accordance with the LANL, Lessons Learned System located at http://www.lanl.gov/projects/lessons_learned/.

10.0 RECORDS

The **SMO staff member** shall submit the following records to the Records Processing Facility, in accordance with QP-4.4:

- SMO COC form (only the most current completed form is submitted) and the completed analytical data record package
- the Data Validation Cover Sheet that shows the transfer of a field copy of the analytical data record package to the data user

- any other pertinent information (e.g., internal memoranda)

11.0 REFERENCES

To properly implement this SOP, **RRES-RS project participants** should become familiar with the contents of the following documents located at http://erinternal.lanl.gov/home_links/Library_proc.shtml:

- RRES-RS Project, Quality Management Plan
- QP-2.2, Personnel Orientation and Training
- QP-4.4, Record Transmittal to the Records Processing Facility
- QP-4.9, QP-5.7, Notebook Documentation for Environmental Restoration Technical Activities
- SOP-01.01, General Instructions for Field Investigations

12.0 ATTACHMENTS

RRES-RS project participants may locate all forms associated with this procedure at <http://erinternal.lanl.gov/Quality/user/forms.asp>.

Attachment A: Data Validation cover sheet (1 page)

Attachment B: Data Record Package Chain of Custody form (1 page)

Attachment C: Assessment Guidelines for the RRES-ECR Sample Management Organization (SMO)

Attachment D: Acronyms and Abbreviations

[Using a token card, click here to record "self-study" training to this procedure.](#)

If you do not possess a token card or encounter problems, contact the RRES-ECR training specialist.

Attachment A: Data Validation Cover Sheet

Section I.

Request number: _____ Validation date: _____ LANL charge code: _____

Contract laboratory name: _____

Validator: _____ Organization: _____

Analytical suite (check all that apply):
☐ volatile organics ☐ high explosives
☐ semivolatile organics ☐ inorganics
☐ organochlorine pesticides/polychlorinated biphenyls ☐ radiochemistry

Other (describe): _____

Section II. Completeness Check

Yes	No	n/a	(check one)	Yes	No	n/a	(check one)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1. Chain-of-custody form(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6. Raw/BSS data
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2. Case narrative	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7. Quality control forms
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3. Sample result forms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8. Quantitation reports
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4. Sample chromatograms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9. TICs forms
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5. Standard chromatograms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10. TICs mass spectra

Identify any samples in the assigned request number that are missing:

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

(Attach additional comment sheets as necessary)

Validator's signature: _____ Date: _____

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Attachment B: Data Record Package Chain of Custody

Section I. Data Package Information (relinquisher completes)

New issue? ☐ Yes ☐ No

Request number(s): _____

Data package requestor (check one): ☐ Editing/validation ☐ User

Name (print): _____ Telephone: _____

RRES-RS Project team: _____ Z number: _____

Section II. Authorizing Signatures (relinquisher and receiver both complete)

Relinquished by: _____ Date: _____
(print name, then sign)

I accept custody of the above listed data package(s).

Received by: _____ Date: _____
(print name, then sign)

Relinquished by: _____ Date: _____
(print name, then sign)

I accept custody of the above listed data package(s).

Received by: _____ Date: _____
(print name, then sign)

Comments:

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Attachment C: Assessment Guidelines for the RRES-ECR Sample Management Organization (SMO)

Based on DOE Albuquerque guidance, the RRES-ECR, and RRES-RS SMO will do the following, with respect to the assessment of analytical laboratories:

1. The SMO is a Division resource will conduct assessments of routinely-used analytical laboratories for RRES-RS customers. Also the SMO will conduct assessments for non-RRES-RS analytical laboratories if the laboratories are routinely used by non-RRES-RS customers. Using a graded approach, the SMO may not perform assessments for one time or rarely used laboratories. There is no distinction between laboratories producing “decision making” and “no decision making” data.
2. i.e., those conducting over 70% of all analyses) will normally receive an initial qualification assessment. This assessment mainly verifies that the vendor functions under a quality program (NELAP). The SMO may use the laboratory before an assessment, with the caveat that if the laboratory has findings during the qualification assessment, any data produced may be at risk.
3. The SMO will perform analytical laboratory assessments once every three years. The assessment may consist of a site visit, a desk-top audit, or verification of a NELAC or EMCAP audit report.
4. Although a contractor normally performs these assessments, an SMO or RRES-RS representative may also conduct an assessment. Internal laboratories are usually assessed by RRES-ECR personnel. Assessments are conducted with the fewest number of personnel possible, and are considerate of laboratory work schedules and the interruptions that assessments cause.
5. The SMO may conduct an assessment (including data package assessments) at any time a problem occurs.
6. The purpose of an assessment is to verify that the analytical laboratory complies with the SOW.
7. The SMO will maintain a list of analytical laboratories currently used which is available upon request.

Attachment D: Acronyms and Abbreviations

COC	chain of custody
EMCAP	Environmental Management Conference Accrediting Program
LANL	Los Alamos National Laboratory
NELAC	National Environmental Laboratory Accreditation Conference
QP	quality procedure
QPPL	quality program project leader
PTL	project team leader
RN	request number
RRES-RS	Risk Reduction and Environmental Stewardship—Remediation Services
SMO	Sample Management Office
SOP	standard operating procedure
SOW	statement of work